

GHS Classification

ID909

10H-Phenothiazine

CAS 92-84-2

Date Classified: Sep. 20, 2006 (Environmental Hazards: Mar. 31, 2006)

Physical Hazards

Reference Manual: GHS Classification Manual (Feb. 10, 2006)

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Explosives	Not applicable	-	-	-	There are no chemical groups associated with explosive properties present in the molecules.
2 Flammable gases	Not applicable	-	-	-	Solid (GHS definition)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Solid (GHS definition)
5 Gases under pressure	Not applicable	-	-	-	Solid (GHS definition)
6 Flammable liquids	Not applicable	-	-	-	Solid (GHS definition)
7 Flammable solids	Classification not possible	-	-	-	No data available by regulated examination methods, though "Flammable"
8 Self-reactive substances and mixtures	Not applicable	-	-	-	There are no chemical groups associated with explosive or self-reactive properties present in the molecule.
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Classification not possible	-	-	-	No data available
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data available
12 Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	-	-	-	The chemical structure of the substance does not contain metals or metalloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At).
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Not applicable	-	-	-	Containing no oxygen, chlorine and fluorine.
15 Organic peroxides	Not applicable	-	-	-	Containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	Liquid at a test temperature, 55degC. Test methods applicable to solid substances are not available.

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 5	-	Warning	May be harmful if swallowed	SPECIES: Rat ENDPOINT: LD50 VALUE: 5000 mg/kg REFERENCE SOURCE: ACGIH (7th, 2001)
1 Acute toxicity (dermal)	Not classified	-	-	-	Based on Rabbit LD0:ca.9400mg/kg (IUCILID (2000)), it was set as the outside of Category.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Solid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Not classified	-	-	-	Based on description that toxicity did not discover (IUCILID, 2000) by 1-hour exposure of 200 mg/L (4 hour exposure equivalent: 50mg/L) in rats, it was set as the outside of category.
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	In the skin irritation test using a rabbit and guinea pig, it was described that there was no stimulativeness in practice (IUCILID, 2000), in that using humans, however, it was described that there was the skin irritation accompanied by redness and pain by occupational exposure (ACGIH, 7th, 2001), JCSC(J)(1998)), so it was set as Category 2.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	We found the description that it had no irritational property in the eye irritation tests using the rabbits (the Organization for Economic Cooperation and Development study guideline 405 etc.(IUCILID (2000)). However, based on the description that it had the irritational property on the human eyes, or it caused the inflammation of the cornea (ICSC (J) and ACGIH (7th, 2001)). So we judged that it had a slight ocular irritational property and we categorized it as Category 2B.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Category 1	(Respiratory sensitization)-; (Skin sensitization)Exclamation mark	(Respiratory sensitization)-; (Skin sensitization)Warning	(Respiratory sensitization)-; (Skin sensitization)May cause allergic skin reaction	Respiratory organ: No data. Skin: We classified it to be Category 1 based on the description that repeated or prolonged skin contact leads to skin sensitization and consequently photosensitivity is induced in ACGIH (7th, 2001) and JCSC(J) (1998).
5 Germ cell mutagenicity	Not classified	-	-	-	Since it was negative in the micronucleus test which used the rat myeloid cells by in vivo (NTP DB (2005)), it carried out the outside of Category.
6 Carcinogenicity	Classification not possible	-	-	-	Classification not possible due to lack of data

7	Toxic to reproduction	Classification not possible	-	-	-	Classification not possible due to lack of data
8	Specific target organs/systemic toxicity following single exposure	Category 1 (liver, kidneys, blood system, nervous system, circulatory system); Category 3 (respiratory tract irritation)	Health hazard	Danger	Cause damage to organs (liver, kidneys, blood system, nervous system, circulatory system); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	Since there was description in ACGIH (7th, 2001) that obstacle of liver and kidney, hemolytic anemia, an abdominal cramp, and tachycardia are caused by acute exposure. And description also in SITTIG (2002) that there are influences on liver damages, hemolytic anemia, and athletic ability, arrhythmia and kidney disorders, and liver, kidney, blood, the nervous system, and the circulatory organ system were judged as target organs, and all were set as Category 1. Moreover, there is description in ICSC (J)(1998) that a respiratory tracts is stimulated, and it was set as Category 3 (respiratory irritant).
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	HSFS (2001) had description of the disorder to liver, blood (anemia), and the nervous system in human, but, the concrete case report etc. was not shown, and we had the description that toxicity did not occur in the dose which exceeds the guidance value range of Category 2 in the repeated oral administrations in the rat (IUCLID (2000)), we presupposed that we could not categorize it, for the insufficiency of data.
10	Aspiration hazard	Classification not possible	-	-	-	No data available

Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Classification not possible	-	-	-	Insufficient data available.
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	Classification not possible due to lack of data